

Remarks

Status of application

Claims 1-47 were examined and stand rejected in view of prior art. Applicant is grateful for the Examiner's indication of allowable subject matter in several of the claims. The claims have been amended to incorporate claim limitations of the allowable claims, thereby allowing all of the claims to be distinguished over the cited art. Reexamination and reconsideration of the claims are respectfully requested.

The invention

A cache management system providing improved page latching methodology is described. In one embodiment, for example, a method of the present invention is described for providing access to data in a multi-threaded computing system, the method comprises steps of: providing a cache containing pages of data in memory of the multi-threaded computing system; associating a latch with each page in the cache to regulate access to the page, the latch allowing multiple threads to share access to the page for read operations and a single thread to obtain exclusive access to the page for write operations; in response to a request from a first thread to read a particular page, determining whether the particular page is in the cache without blocking access by other threads to pages in the cache; if the particular page is in the cache, attempting to obtain the latch for purposes of reading the particular page; and allowing the first thread to read the particular page unless a second thread has latched the particular page on an exclusive basis.

General

Minor non-art amendments have been made to the specification (Claims heading) for purposes of improving readability, and to claim 28 for purposes of addressing subject matter claimed (claim language now directed to the statutory subject matter of a method or process).

Prior art rejections

Certain ones of Applicant's pending claims have been rejected under Section 103(a), as follows:

(a) Claims 1-10, 12, 17, 20, 27, 29-37, 41, and 42, rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver (US Patent 6,029,190);

(b) Claims 13, 14, and 40, rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver (US Patent 6,029,190) in view of Chauvel et al. (US Pub. 2002/0065992); and

(c) Claims 21 and 43, rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver (US Patent 6,029,190) in view of Parson (US Pub. 2005/0166206).

The claims have been amended so that all claims now include the subject matter that the Examiner has indicated to be allowable in claims 11 and 38.

In particular, Applicant's independent claim 1 has been amended to incorporate the subject matter of claim 11 pertaining to the claim limitation of "determining whether the particular page is in the cache without acquiring a mutual exclusion object (mutex) controlling access to pages in the cache", which the Examiner has indicated distinguishes Applicant's invention over the prior art. In a similar manner, Applicant's independent claim 29 has been amended to incorporate the foregoing claim limitation, which for that claim family is set forth in allowable claim 38. (Claims 11 and 38, having been incorporated into their respective base claims, are now redundant and are thus canceled.) As all of Applicant's independent claims (i.e., claims 1 and 29) now incorporate allowable subject matter, all claims are believed to be allowable by virtue of dependency from Applicant's allowable independent claims.

Conclusion

In view of the foregoing remarks and the amendment to the claims, it is believed that all claims are now in condition for allowance. Hence, it is respectfully requested that the application be passed to issue at an early date.

If for any reason the Examiner feels that a telephone conference would in any way expedite prosecution of the subject application, the Examiner is invited to telephone the undersigned at 408 884 1507.

Respectfully submitted,

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